COMPLETE LISTING OF CLAIMS

Please cancel claims 15, 18-59, 64, and 65 without prejudice. Please rewrite claims 1 and 4 as indicated below.

1. (Currently amended) A method of determining location of a mobile unit, the method comprising:

receiving signals from at least two base stations;

determining a time difference of arrival between the received signals;

estimating a lower bound of excess delay in accordance with the time of arrival of the signals and known distances between the base stations, wherein estimating the lower bound of excess delay is done with less than all of the signals received from the base stations; and

estimating a location of the mobile unit in accordance with the estimated lower bound of excess delay and the time difference of arrival between the received signals.

2. (Original) A method as defined in Claim 1, wherein the received signals are CDMA pilot signals.

3. (Original) A method as defined in Claim 1, wherein the received signals are GSM signals.

4. (Currently amended) ~~A method as defined in Claim 1, further~~ comprising A method of determining location of a mobile unit, the method comprising:

receiving signals from at least two base stations;

determining a time difference of arrival between the received signals;

estimating a lower bound of excess delay in accordance with the time of arrival of the signals and known distances between the base stations; and

estimating a location of the mobile unit in accordance with the estimated lower bound of excess delay and the time difference of arrival between the received signals

adjusting the estimated location of the mobile unit using the lower bound of excess delay.

5. (Original) A method as defined in Claim 4, wherein the adjustment comprises subtracting the lower bound of excess delay from the time of arrival measurement for the respective signal.

6. (Original) A method as defined in Claim 4, wherein the adjustment comprises weighting the time of arrival measurements according to the lower bound of excess delay.

7. (Original) A method as defined in Claim 4, wherein the adjustment comprises eliminating a time of arrival measurement from the location estimate based on the lower bound of excess delay.

8. (Original) A method as defined in Claim 1, wherein the lower bound of excess delay for the received signals is used to determine an accuracy of the location estimate of the mobile unit.

9. (Original) A method as defined in Claim 1, wherein the excess delay introduced into the signals is due to multipath.

10. (Original) A method as defined in Claim 1, wherein signals are received at the mobile unit from a plurality of base stations and the lower bound on the excess delay is estimated for a plurality of signal time of arrival determinations.

11. (Original) A method as defined in Claim 1, wherein the signals received from the base stations are transmitted from the base stations at the same time.

12. (Original) A method as defined in Claim 1, wherein the signals received from the base stations are transmitted synchronized in time to each other.

13. (Original) A method as defined in Claim 1, wherein the received signals are communication signals.

14. (Original) A method as defined in Claim 1, wherein the received signals are cellular communication signals.

Claim 15. (Canceled)

16. (Original) A method as defined in Claim 1, wherein estimating location of the mobile unit includes another position location system.

17. (Original) A method as defined in Claim 16, wherein the other position location system is a global positioning system.

Claims 18-59. (Canceled)

60. (Original) A method of determining location of a mobile unit, the method comprising:

receiving signals from at least two base stations and determining the time of arrival at the mobile unit for the respective signals;

determining the time difference of arrival between the received signals from the respective base stations;

estimating a lower bound of excess delay in accordance with the time of arrival of the signals from their respective base stations and known distances between the base stations; and

transmitting the time difference of arrival and lower bound of excess delay to a different location and estimating location of the mobile unit in accordance with the estimated lower bound of excess delay and the time difference of arrival between the received signals at the different location.

61. (Original) A method as defined in Claim 60, wherein the different location is a base station.

62. (Original) A method of determining location of a mobile unit, the method comprising:

receiving signals from at least two base stations and determining the time of arrival at the mobile unit for the respective signals;

transmitting the times of arrival of the signals to a different location;

determining the time difference of arrival between the received signals from the respective base stations at the different location;

estimating a lower bound of excess delay in accordance with the time of arrival of each signal from its respective base station and a known distance between the base stations at the different location; and

estimating location of the mobile unit in accordance with the estimated lower bound of excess delay and the time difference of arrival between the received signals at the different location.

63. (Original) A method as defined in Claim 62, wherein the different location is a base station.

Claims 64-65. (Canceled)